

September 30, 2005
Work Plan for Fiscal Year 2006

I. Land Retirement Program, CVPIA Section 3408(h)

II. Responsible Entities

| | Agency | Staff Name | Role |
|----------|---------------|-------------------|-----------------------|
| Lead | USBR | Robert May | Program Manager |
| Co--Lead | USFWS | Bea Olsen | Agency Representative |

The overall objectives for the Land Retirement Program are outlined in CVPIA, Section 3408(h) and are described in the Land Retirement Program Interim Guidelines, which were revised in Nov. 1998, by the Interagency Land Retirement Team (LRT), with input from a stakeholder's group and other State and Federal Agencies.

III. Program Objectives for FY 2006

A. Evaluate physical and biological impacts of retiring land

Evaluate impacts of retiring 15,000 acres of land from irrigated agriculture. Interior will continue to purchase land from willing sellers within the Demonstration Project areas up to the targeted 15,000 acres and remove it from irrigated agriculture. For FY 2006, the Land Retirement Program will focus on completing acquisitions in the targeted 8000-acre project area. Approximately 900 acres still need to be acquired.

Pursuant to the Service's ESA BO September 1999 for the CVPIA Land Retirement Program Demonstration Project, five years of monitoring had to be done to evaluate the potential risks to biota and the physical impacts upon groundwater level and water quality, and soil chemistry. A five year report (1999-2004) was completed in FY 2005 for the Fresno County lands. Two more years of monitoring in Tulare and Kings Counties are still required. Monitoring of selenium levels in vegetation and wildlife will continue this fiscal year.

B. Evaluate Upland Habitat restoration techniques

A variety of methods, including direct seeding, drilling, imprinting and nursery transplants are being used and evaluated to determine effective, safe and economical means for upland habitat rehabilitation, which may aid in the recovery of threatened and endangered species in the San Joaquin Valley. For FY06, BLM will continue restoration activities that emphasize build upon the monitoring results from past restoration efforts, while still other methods are being tested. Acres of annual restoration will expand to over 300 acres per year.

BLM will work to disseminate useful alkali sink restoration techniques which BLM has developed. ESRP will synthesize and disseminate of information that has been developed by ESRP over the course of the Land Retirement Demonstration Project (LRDP). The Land Retirement Team, BLM and ESRP will employ a variety of outreach efforts to make the research and restoration results known.

Activities at the Tranquillity site in Fresno County will comprise the continuation of the native plant nursery and seed processing, additional weed control restoration research trials and site maintenance. Installation of Wildlife Friendly Farming Units will be initiated via partnership with the Westside Resource Conservation District.

C. Make acquired water available for other CVPIA purposes

Water not needed for habitat restoration will be made available for other CVPIA program uses. Many of the Demonstration Project acquisitions in the Alpaugh and Atwell Island Districts come with productive deepwater wells that could be pumped to lower water tables in drainage-impaired areas, and to provide additional sources of water supplies for CVPIA uses.

The Demonstration Project is exploring the use of supplemental and pre-irrigation water to promote faster and more effective habitat restoration. A standard of 2-acre foot-per-acre has been estimated as being adequate to promote the growth of native, drought-tolerant shrubs, forbs and grasses, and some dryland crops, while not contributing to drainage problems. Irrigation will be required to establish the diversified upland habitat units. Acquired water may be used to provide water to refuges, or it may be transferred or reassigned to other CVPIA users.

IV. Status of the Program

In 1997, Interior via the CVPIA Land Retirement Program solicited offers for voluntary land retirement from willing sellers, within the drainage-impacted area. A total of 80 applications were received as of September 1, 2002, amounting to approximately 55,000 acres. Even in the early years of the program when land prices were lower, this response far exceeded available funding every year.

In November 1999, Interior established the CVPIA Land Retirement Demonstration Project (LRDP). This project is 15,000 acres in size, with approximately 7,000 acres targeted for retirement in western Fresno County (Tranquillity project area), 1,600 acres in southeastern

Kings County and approximately 6,400 acres in southwestern Tulare County (Atwell Island project area). From 1993 to date, the CVPIA Land Retirement Program has acquired 10,283 acres at a total of \$27,400,000 expenditure that includes both Prospect Island and the LRDP lands.

Pursuant to the LRDP Biological Opinion, the demonstration project monitors and evaluates for five years the impacts of land retirement upon groundwater levels, groundwater and surface water quality, soil chemistry and biota. Various techniques are being evaluated to determine the most effective and economical means to rehabilitate safe upland habitat that may aid in the recovery of threatened and endangered species in the San Joaquin Valley.

In 1999, the Demonstration Project Habitat Restoration study plots were laid out on 800 acres of the 2,090 acres acquired in Fresno County. The Atwell Island project site began in the fall of 2001. At both study sites four treatments were replicated five times in a randomized block design. The treatments consisted of: seeding and planting of native plants; installing earthen berms to create micro- topographic contours; seeding and planting native species and installing contours; and control. Each 10-acre plot is located in the center of a 40-acre block with the 30-acre remainder buffer planted in barley to isolate the plots. At Atwell Island, plot size was reduced to 2.5 acres within 10-acre plots.

Data collected includes percent plant cover, productivity, survivorship, invertebrate species richness and abundance, and reptile species richness and abundance. Additional data are collected to examine winter raptor use and the presence of other wildlife species. Tissue samples are taken and analyzed to estimate the potential amount of bioaccumulation of contaminants, notably selenium, throughout the site. This contaminant level will be used to determine if further investigation is necessary to evaluate the effects of land restoration on the abundance, diversity and health of wildlife using the restored habitat. Five year of results clearly show that retiring land from irrigated agriculture has physical and biological benefits. Additionally, the LRDP results are applicable to the majority of San Joaquin Valley acres having similar characteristics. The concept of a declining shallow groundwater table in response to land retirement is supported by the results that found a 1 to 2 foot decline per year. This result is important as the shallow groundwater beneath the project sites consists of highly saline water with high concentrations of selenium and boron. The decline insures that any wildlife contact is highly unlikely. Soils were found to consist primarily of poorly drained clays and loams with elevated levels of salt, selenium and boron when compared to other soils in the San Joaquin Valley.

Land retirement has led to increased abundance and diversity of wildlife. Increased invertebrate species and abundance have included parasites and predators of agricultural pests as well as beneficial pollinators. Bird species diversity and abundance increased across all treatments immediately following restoration efforts and included special status species. Land retirement has not resulted in increased levels of bio-accumulated Selenium. Selenium concentrations in vegetation, invertebrates and mammals have not changed significantly over the study period to date. All Selenium levels measured are considered below concentrations

of concern to EPA and USFWS at both study sites.

Despite the obstacles of restoring retired agricultural lands, localized areas have responded well to the re-introduction of native vegetation. At Atwell Island, BLM emphasizes previous restoration successes such as the establishment of hedgerows with native plant species. They have now done restoration activities on 1119 acres. A number of sensitive San Joaquin Valley wildlife species, including a kit fox, loggerhead shrikes and Tipton's kangaroo rat have been observed using these restored areas. At the Tranquillity site, results indicate that seeding by imprinting is a successful and cost-effective method of planting a variety of native plant species. The one-of-a-kind San Joaquin Native Plant Nursery now has over 100 species growing, some under mechanical means as worked up with the USDA Natural Resources Conservation Service Plant Materials Center. As weed competition is one of the major challenges in successful upland habitat restoration, trials focusing on this issue were initiated in 2004 and are continuing through 2006.

V. FY 2005 Accomplishments

The FY05 Accomplishments are described in the following six categories.

Acquisitions in FY 2005:

Acquisition of drainage impacted lands began in 1999 at two sites: Tranquillity in Fresno County and Atwell Island in Tulare and Kings Counties. To date, 2090 acres have been retired in Fresno County. During FY05, three parcels totaling 781 acres were purchased at the Atwell Island site, bringing the project total for that area to 6,965 acres. Atwell Island FY 2005 acquisitions were done at a cost of \$700,000 plus \$3,352 in closing costs. Appraisals are currently being done on 4 parcels in Atwell Island totaling 534 acres and offers will be made on these parcels before the end of FY05.

Research and Monitoring Accomplishments for FY 2005:

At both LRDP sites in the San Joaquin Valley monitoring activities continued in order to meet the provisions of the 1999 Biological Opinion (BO) for the project. Results are indicative of those that would be expected on the majority of drainage impacted lands in the San Joaquin Valley.

Groundwater and soil monitoring continued at both project sites, with most work having been completed at Tranquillity. Results showed that the shallow water table declined about 1 foot per year. This declining shallow groundwater trend is important due to the water quality which exhibits high salinity and high selenium concentrations. The selenium in the top foot of soil decreased. There was no evidence of upward movement of water or salt into surface soils. Concerns for bioaccumulation of selenium in ponds did not occur, as soil conditions and precipitation did not create ponds.

The Land Retirement Demonstration Project (LRDP) plots at the Atwell Island site were monitored by BLM for vegetation structure and small mammal populations. Monitoring will continue for two more years.

At Atwell Island on lands outside of LRDP plots, BLM wildlife surveys of sensitive plants and animals resulted in important findings. Observers found: a population of the endangered Tipton's Kangaroo Rat; a breeding population of 29 pairs of the sensitive Burrowing Owls; a breeding population of the sensitive Coast Horned Lizards; a population of the sensitive San Joaquin Valley Coachwhips; a breeding population of Swainson's Hawks; and a population of a sensitive plant, Hoover's Woollystar.

The Atwell Island wildlife sighting database now contains 9,500 observations. BLM developed plant and animal lists for the Atwell Island project area. The plant list contains 135 species from 43 families. The animal list includes 185 bird, 22 mammal, 9 reptile, 4 amphibian, and 23 butterfly species. A photo-illustrated flora of Atwell Island was also developed.

At Tranquillity, ESRP completed the contracted 5-year Habitat Restoration Study, designed to determine the effects of habitat restoration on wildlife on 20, 10-acre plots at the Tranquillity study site. All data were entered into databases, proofed, edited and analyzed. Weed control continues to be the primary challenge in restoration efforts. ESRP established a number of replicated research trials at Tranquillity and sampled previously installed trials.

Restoration efforts & site management accomplishments for FY 2005:

Lands retired by the Land Retirement Program, in order to meet one of the program goals, were to be restored to upland habitat. Methods for performing this task have been tried at both sites. Complete restoration to the types of upland habitats found in the San Joaquin Valley could take many years to achieve, but the program's work has restored portions of the land and continues to adapt techniques to achieve desired habitat values. Sharing the results of this work is the basis for most of the Partnership and Outreach Land Retirement Program efforts.

At Atwell Island the total acres that BLM performed restoration activities on is 1119 acres and 119.5 miles of hedgerows. In FY05 restored acreage totaled 345. This included eight miles (approx. 80 acres) of hedgerows established with native shrubs; 40 acres of fallow land (fallow 5 years) seeded with a mix of native annuals and perennial seed after burning using Range Drill seeder; 40 acres of fallow land (2 years) seeded with a mix of native annuals and perennial seed after burning and then disking using Trillion seeder; 40 acres of recently farmed land (oats) planted with a mix of native annuals and perennial seed after disking using Trillion seeder; 40 acres of land just being taken out of alfalfa planted with a mix of native annuals and perennial seed after disking using Trillion seeder; 6 acres of a sump planted with iodine bush and suaeda seed; planted 200 trees planted in riparian-canal areas using hydro-planter; and 150 potted trees and shrubs planted in riparian-canal areas. Additionally, BLM established a wildlife farming demonstration area with 40 acres of native shrub plantings interspersed with 45 acres of crops: 15 acres of safflower, 10 acres of lespedeza, 10 acres of milo maze, and 10 acres of wheat. Native seed source were increased by doing seed collection activities (approx. 8000 pounds) utilizing seed collecting contracts.

A 1.5 acre grow-out area for native grass seed was established under contract. An existing 10 acre wetland for breeding season waterfowl and shorebirds and an existing 20 acres of wetland for wintering waterfowl were managed. 2 acres of native forb seed around the edge of the pond and 2 acres of perennial grass seed along ditch banks were planted. Sites are currently being monitored by BLM to determine the long-term success of these plantings. The prolonged rainy season in 2005 produced the most prominent floral displays of annual species observed to date.

At Tranquillity, ESRP continued to maintain a four acre native plant nursery. Seed was harvested from 64 native plant species in summer and fall 2004. After the harvest, the planting beds for annual species were reformed and replanted with 100 native species. High rainfall required extensive weeding in the nursery during the 2005 growing season. An additional 8 species were grown using mechanized production and harvesting methods.

The seed collecting, cleaning and storage activities performed by ESRP during FY 2005 were done on 46 native plant species collected from 17 off-site locations. The seed cleaning facility was upgraded with an approved dust collection system and desktop seed cleaner. The seed inventory was increased by 1550 pounds representing over 100 species. ESRP planted 50 acres with native plants in association with various research trials and one acre as a restoration demonstration area.

ESRP conducted site management at Tranquillity with the assistance of a local farmer. Access roads were graded, fire control measures established, and irrigation ditches maintained. Sheep grazing was initiated on a limited basis to control weeds and reduce fire damage. Weed control continues to be the primary challenge in restoration efforts at this site. ESRP established a number of replicated research trials at Tranquillity and sampled previously installed trials.

Reports in FY 2005:

The Biological Opinion for the LRDP required five years of monitoring and annual reports. ESRP performed the monitoring, analysis and report writing for five years of the project at Tranquillity and three years of biota selenium monitoring at Atwell Island. The research findings regarding soil and groundwater responses to land retirement were done by Reclamation. The Five-Year Report for the Land Retirement Demonstration Project will be published and available on the Reclamation SCCAO website in FY 2005.

Outreach accomplishments for FY 2005:

Outreach in the form of presentations, tours and classes about the results from the Land Retirement Demonstration Project are important means to extend to other agencies, individuals and interested parties the information the Land Retirement Team has learned during the past year. A variety of outreach efforts were performed in FY05 by all associated with the project.

At the International Salinity Conference held at Riverside, Ca, the Bureau of Reclamation

hydrologist and soil scientist presented research findings regarding soil and groundwater responses to land retirement in the Western San Joaquin Valley. BLM held a workshop on recreation and tourism potential for the Ancient Valley State Park at Atwell Island and the Tulare Basin with the California State Parks. Tours were given by ESRP of the nursery and seed cleaning facility to the Clovis Botanical Garden staff and to nursery staff from the Golden Gate National Recreation Area. Poster presentations were given at the Raptor Research Foundation and the Society for Ecological Restoration, California Chapter.

A web-site that makes information on the Land Retirement Demonstration Project and research results available to the public and to cooperating agencies was developed by ESRP. Links are provided to the various annual reports and the 5-year report. The ESRP web site can be accessed at: <http://esrp.csustan.edu/projects/lrdp/>.

Workshops on land retirement were developed that included classroom and on-site field work for several local high school science classes and science clubs, Earth Day, and Clovis Botanical Garden. ESRP sponsored a booth and gave presentations to 100 under-privileged school children at the USDA Forest Service Central California Consortium event held at Grizzlies Stadium, Fresno, California. Two CSU Fresno graduate students were supported by ESRP to do work on pollinator population structure and on seed delivery methods for seven native plant species.

Partnerships in FY 2005:

Due to the funding limits for this program, developing partnerships with farmers, non-governmental organizations, other agencies and educational groups has been pursued from the beginning of the Land Retirement Program. FY2005 continued this endeavor, perhaps to new levels, as the partnership established with the AmeriCorp NCCC demonstrates. The partnership with AmeriCorp NCCC provided a crew to work on projects that included construction of 0.5 miles of nature trail, 3 miles of ditch and pond bank reforestation, and general cleanup and maintenance of the administrative site. The crew worked on a greenhouse at the Alpaugh School as a first step to get students involved in the restoration project. They also conducted a major cleanup event and removed over 45 tons of garbage from the community, much of which might otherwise have been dumped on the project area.

Critical to the success of the restoration activities at Atwell Island was the partnership BLM developed with cooperating farmers to carry out restoration activities. Other efforts by BLM and FWS centered on the continued efforts with the Tulare Lake Basin Working Group and the assistance provided to help establish Tulare Basin Wildlife Partners, an NGO which will be a cooperator on the project. BLM's community partnerships included the Tulare County Audubon Society; Alpaugh School District; Citizens for a Better Alpaugh; State Park Service – Allensworth SHM; USDA NRCS; USDA Forest Service (Trails Unlimited); and the Kern NWR.

A number of grants were applied for by ESRP to further research partnerships at the Tranquillity site. Approval was denied on one, but word is waiting on the other two.

VI. Tasks, Costs, Schedules and Deliverables

A. Narrative Explanation of Tasks

1. Program Management

This program is managed as an interagency team with members from USBR, FWS & BLM. USBR provides program leadership, budgets and administration (0.7 FTE). USBR Hydrologist (1.0 FTE) provides expertise on the physical impacts of land retirement research studies and additional staff support from the USBR Sacramento Regional Office. FWS and BLM team members provide agency coordination, land management planning and project management expertise. Program priorities are set jointly, as a team. The FWS cost estimate covers the FWS team member's salary (1 FTE) and additional staff support from the FWS Sacramento Field Office. The BLM cost estimate covers the BLM Site Coordinator in the BLM Bakersfield Area Office. Additional costs for BLM are included in the Interagency Agreement between BLM and USBR, which provides for additional BLM support for land acquisition, restoration and land management activities. BLM provides additional support in the way of equipment, office space, supplies and personnel at BLM's cost. BLM is not charging any overhead to this program.

2. BLM Land Acquisition & Restoration

By the end of FY 2005, appraisals should be done on 4 parcels in Atwell Island totaling 534 acres and offers made on them. Assuming all of these acquisitions begun in FY 2005 are completed, in FY 2006 there remain to be appraised and purchased 21 parcels comprising 230 acres. Most of the larger parcels have already been acquired, so just these smaller ones are left. Recent land prices, especially for smaller parcels, are averaging about \$3000 an acre. If acquisition of the 534 acres does not occur in FY2005, the total remaining 764 acres of the project will need approximately \$1.2 million.

Restoration activities in FY 2006 will be done on 300 to 350 acres and emphasize previously successful techniques. This will bring the total area restored to 1500 acres. Building on the monitoring results from past restoration efforts, new methods of restoring marginal farm land will be designed and trials initiated. These trials and the LRDP plots will be monitored for vegetation structure, small mammals, and contaminants (selenium especially). Cooperation on research projects with the Bureau of Reclamation's Technical Services Center and the Land Retirement Team will continue. A technology transfer program will be developed by BLM to disseminate useful alkali sink restoration techniques which have been developed on the project.

For the Atwell Island site, BLM will develop a 5- and 10-year management and action plan. The partnership with AmeriCorp NCCC that brings \$80,000 of labor to the project will continue. Partnerships with cooperating farmers that value \$90,000 of tractor and heavy equipment work to the project, which have been critical to restoration efforts, will also continue. The help given to develop Tulare Basin

Wildlife Partners as it becomes an NGO and begins to operate as a “Friends Group” to the Atwell Island Project will proceed. Also, continued coordination with other NGOs and Agencies will remain a task.

3. ESRP Contract for the Tranquillity site

The primary task to be covered by the remainder of the ESRP contract will be the preparation of a project “synthesis” document and dissemination of the information. Periodic updates to the project’s website, preparation of presentations for conferences, and publications in peer-reviewed journals will ensure that the information developed over the course of the LRDP will be available to the widest possible audience.

The continuation of the native plant nursery and seed processing at the processing facility are important to the project and to the understanding of native plant propagation and its role in large-scale San Joaquin Valley restoration. Over 100 species are currently being grown, most of which are locally rare and some regionally rare. The FY06 budget will result in a downsizing of the nursery from its current state and the elimination of large-scale seed processing. Processing of small lots of seed will continue.

Restoration research will be limited to the sampling of research trials installed in fall 2005. The primary research trial will be a cooperative effort between ESRP and Dr. Kenneth Lair, USBR Technical Services Center. ESRP will assist with data collection, entry and analysis. Reporting of these results will be done in the synthesis document referred to above.

Site maintenance at Tranquillity will continue to be accomplished by a farmer in the area. Actions will be done to minimize invasive weeds and reduce fire danger. Grazing on the site will be initiated by a local shepherd.

Two 40-acre wildlife friendly farming units, similar to the three installed at Atwell Island, will be installed on the Tranquillity site using a Cooperative Agreement done by the Land Retirement Team with the Westside Resource Conservation District. ESRP will provide support for the installation of these units including native plant seed, irrigation water, and an evaluation. Additionally, 40 acres will be restored using proven, successful techniques, within the HRS buffers. This restoration effort will be evaluated for the potential of large-scale application.

4. Denver Technical Services Assistance

Utilize the USBR Denver Technical Services Center Restoration Ecologist Dr. Ken Lair to expedite refinement and continuance of research on: species adaptation, planting methods, weed control, plant selection, propagation, seed increase, plant materials supply for landscape-scale application, and interagency development for commercial retail supply.

5. Groundwater & Soil Monitoring

Groundwater and soil monitoring at the Land Retirement Demonstration Project Sites will continue to be in compliance with the FWS Biological Opinion. Groundwater, surface water and soil samples will be collected and analyzed for constituents of concern as part of the LRDP.

6. GIS Mapping Analysis

GIS databases and maps for analysis of data collected in the past years and current one of the LRDP will be developed.

7. Additional Funding Needs

Land Acquisition - Atwell Island Water District (AIWD):

The current budget precludes acquisition of approximately 230 acres of land and associated water within the boundaries of the Land Retirement Demonstration Project in the Atwell Island Water District. This acquisition would complete the targeted acreage for the Land Retirement Demonstration Project in the Atwell Island Water District. The estimated cost was originally done assuming an average cost per acre of \$1500. The remaining 230 acres are in 21 parcels. The average cost per acre of smaller parcels has risen to \$3000.

B. Schedule and Deliverables

| | Task | Start Date | Complete Date | Deliverable |
|-----|--|-------------------|----------------------|--|
| 1 | Program Management | 10/01/05 | 09/30/06 | Annual Work Plan, Program Administration, Public Outreach |
| 1.1 | Reclamation Program Manager | 10/01/05 | 09/30/06 | Reclamation Agency Program Manager (0.7 FTE) To integrate all Project efforts, resources, public outreach, and responsibilities. |
| 1.2 | FWS Staff | 10/01/05 | 09/30/06 | USFWS Agency Coordination (1.25 FTE), Demonstration Project Coordination & Management, Public Outreach, Sacramento staff support. Implementation Plan preparation. |
| 1.3 | Reclamation Staff, Hydrologist | 10/01/05 | 09/30/06 | Reclamation Agency Hydrologist (1.0 FTE), Manages & reports well monitoring program, groundwater data and modeling programs, and physical impact(s) of all restoration projects. |
| | | | | |
| 2 | Land Acquisition (BLM) & Restoration (BLM) | 10/01/05 | 09/30/06 | Real property acquisition (processing, appraisal, title co., cadastral review) & restoration & monitoring activities. |
| 3 | Demonstration Project Coordination with ESRP | 10/01/05 | 09/30/06 | Monthly Progress, Annual Budget & Schedule, Five Year Report for Tranquillity Site. Database management & updates. On-Site management. |

| | | | | |
|---|---|----------|----------|--|
| 4 | Denver TSC | 10/01/05 | 09/30/06 | Research to assist in site restoration assessment & technology transfer methods. Coordinate with seed industry and NRCS Plant Materials Research Program. Soil& water analysis. |
| 5 | Groundwater & Soil Monitoring & Photog. | 12/01/05 | 9/30/06 | Collect & analyze Groundwater, Surface Water & Soil Samples. Includes Aerial Photography. |
| 6 | GIS Mapping and Analysis | 10/01/05 | 9/30/06 | GIS Map Products and Analysis |

Schedule and Deliverables - FY 06 Additional Funding Needs.

| # | Task | Start | Complete | Deliverable |
|---|-----------------------------|----------|----------|---|
| 1 | BLM Land Acquisition (AIWD) | 10/01/05 | 9/30/06 | Real Property Acquisition (+/-230 acres), Atwell Island Water District |
| | | | | |

Explanatory Notes:

1. Land Acquisition - Atwell Island Water District (AIWD): The current budget precludes acquisition of 21 parcels on approximately 230 acres of land and associated water within the boundaries of the Land Retirement Demonstration Project in the Atwell Island Water District. This acquisition would complete the targeted acreage for the Land Retirement Demonstration Project in the Atwell Island Water District. **Estimated Cost: \$345,000** (assumes average cost of \$1500/acre for land and water) to **\$690,000** (assumes average cost of \$3000/acre). **Task 2.**

C. Summary of Program Costs and Funding Sources

| # | Task | Total Cost | Funding Sources | |
|-----------------------------|--|---------------------|---------------------|---------------|
| | | | RF | W&RR |
| 1 | Program Management Costs (Reclamation, USFWS, BLM) | | | |
| 1.1 | Reclamation | \$ 385,000 | \$ 385,000 | \$ |
| 1.2 | USFWS | \$ 190,000 | \$ 190,000 | \$ |
| 2 | BLM Interagency Agreement/Land Acquisition | \$ 360,000 | \$ 360,000 | \$ |
| 3 | Demonstration Project (ESRP) | \$ 434,000 | \$ 434,000 | \$ |
| 4 | Reclamation Denver Technical Service Center | \$ 86,000 | \$ 86,000 | |
| 5 | Groundwater & Soil Monitoring & Aerial Photography | \$ 40,000 | \$ 40,000 | |
| 6 | GIS mapping & analysis | \$ 5,000 | \$ 5,000 | |
| Total Program Budget | | \$ 1,500,000 | \$ 1,500,000 | \$0.00 |

Program Costs and Funding Sources - Additional Outyear Funding Needs

| | Task | Total Cost | Funding Sources | |
|-----------------------------|-----------------------------|------------------|------------------|-------------|
| | | | RF | W&RR |
| 2 | Land Acquisition (AIWD) BLM | \$345,000 | \$345,000 | \$ 0 |
| | | | | \$ 0 |
| Total Program Budget | | \$345,000 | \$345,000 | \$ 0 |

Explanatory Notes:

1. Land Acquisition - Atwell Island Water District (AIWD): The current budget precludes acquisition of 21 parcels on approximately 230 acres of land and associated water within the boundaries of the Land Retirement Demonstration Project in the Atwell Island Water District. This acquisition would complete the targeted acreage for the Land Retirement Demonstration Project in the Atwell Island Water District. **Estimated Cost: \$345,000** (assumes average cost of \$1500/acre for land and water) to **\$690,000** (assumes average cost of \$3000/acre). **Task 2.**

D. CVPIA Program Budget

| | Task | Direct Salary and Benefits Costs | Contracts Costs | Misc. Costs | Administrative Costs | Total Costs |
|-----|--|----------------------------------|-----------------|------------------|----------------------|--------------------|
| 1 | Program Manage Costs (Reclamation,USFWS,BLM) | | | | | |
| 1.1 | Reclamation | \$199,600 | \$ | \$12,646 | \$172,754 | \$385,000 |
| | USFWS | \$ 155,477 | | \$ 318 | \$34,205 | \$190,000 |
| | | | | | | |
| 2 | Land Acquisition/BLM - | | \$360,000 | | | \$360,000 |
| 3 | Demo Project ESRP | | \$ 434,000 | | | \$434,000 |
| 4 | Reclamation Denver TSC | | \$ 86,000 | | | \$ 86,000 |
| 5 | GW & Soil Monitoring & photog | | \$ 40,000 | | | \$ 40,000 |
| 6 | GIS Mapping & analysis | | \$ 5,000 | | | \$ 5,000 |
| | Total by Category | \$ 355,077 | \$ | \$ 12,964 | \$ 206,959 | \$1,500,000 |

VII. Future Years Commitments/Actions

Table E. DRAFT CVPIA 5-Year Budget Plan FY 2007 – 2011
(\$ Thousands)

| Program Description and Section | | FY 2007 | FY 2008 | FY 2009 | FY 2010 | FY 2011 | Total (\$) |
|---------------------------------|------------------|---------|---------|---------|---------|---------|------------|
| | W&RR | 0 | | | | | 0 |
| | RF | 1,500 | 1,500 | 1,500 | 1,500 | 1,500 | 7,500 |
| | State | | | | | | 0 |
| | Other (identify) | | | | | | 0 |
| Total: | | 1,500 | 1,500 | 1,500 | 1,500 | 1,500 | 7,500 |

In the immediate future, the remaining acres within the Atwell Island Water District will be purchased, restoration activities and technology transfer will continue and partnerships will increase and broaden within the communities of concerned San Joaquin Valley resource managers. For Land Acquisition in Atwell Island Water District (AIWD), the current budget precludes acquisition of 21 parcels on approximately 230 acres of land and associated water within the boundaries of the Land Retirement Demonstration Project in the Atwell Island Water District. This acquisition would complete the targeted acreage for the Land Retirement Demonstration Project in the Atwell Island Water District. The estimated cost could range between \$345,000 (assumes average cost of \$1500/acre for land and water) and \$690,000 (assumes average cost of \$3000/acre).

Continued restoration work (at a cost of \$1000 to 1500 per acre) and development and transfer of ecological restoration technologies for other retired agricultural lands in the San Joaquin Valley would require funding levels of \$1,500,000. Restoration work would include habitat restoration plans, land management plans, ongoing habitat recovery for threatened and endangered species, and research on cost effective land management and restoration techniques for retired lands. Ongoing research restoration efforts are being made to lower the establishment costs per acre and to lower maintenance costs.